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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/069,821 | 06/28/2002 | Ralf Schultze | 10191/2260 | 5369 |

26646 7590 10/08/2003

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EXAMINER

LE, HOANGANH T

ART UNIT PAPER NUMBER

2821

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,821

Applicant(s)

SCHULTZE et al

Examiner

HOANGANH LE

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 27, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-37 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-31, 33-35, and 37 is/are rejected.
- 7) ☒ Claim(s) 32 and 36 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other:

DETAILED ACTION

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. The Preliminary Amendment filed on February 27, 2002 is acknowledged.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, 'the n-sided shape' of claim 22, "the n-sided shape has rounded corners" of claim 23, "the oval and elliptical" of claim 24, and "the asymmetrical" of claim 26 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 22-23,24 and 26 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 22-23, what is meant by “n-sided shape”?

In claim 24, what is meant by “one oval and elliptical”?

In claim 26, “what is meant by “corresponds approximately”?

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 19-21,26-29,33,35, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe (the JP Patent No.02209002, cited by Applicant).

The Abe reference teaches in figures a slotted antenna, comprising: an electrically conducting base area 1; at least one first electrically conducting web 3a; at least one second electrically conducting web 3b; a first electrically conducting disc 2a including a recess and that is offset from the electrically conducting base area, the first electrically conducting disc being connected at an outside edge thereof to the electrically conducting base area by the at least one first electrically conducting web; a second electrically

conducting disc 2b situated above the recess and connected at an outside edge thereof to the first electrically conducting disc by the at least one second electrically conducting web; and an antenna conductor 4b leading to the second electrically conducting disc 2b. At least one of the outside edge of the first electrically conducting disc and the outside edge of the second electrically conducting disc is approximately circular. The recess is approximately circular in shape. A circular area of the recess of the first electrically conducting disc corresponds approximately to a circular area of the second electrically conducting disc. A circular area of the recess of the first electrically conducting disc is smaller than a circular area of the second electrically conducting disc. The first electrically conducting disc and the second electrically conducting disc are approximately concentric. The at least one first electrically conducting web and the at least one second electrically conducting web are approximately perpendicular to the first electrically conducting disc, the second electrically conducting disc, and the electrically conducting base area. The recess of the first electrically conducting disc is arranged concentrically to the first electrically conducting disc. The one of the first electrically conducting disc and the second electrically conducting disc having a greater diameter is the one of the first electrically conducting disc and the second electrically conducting disc that is closer to the electrically conducting base area.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 22-25,30,31, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe (cited above).

The Abe reference teaches every feature of the claimed invention, excluding the at least one of the first electrically conducting disc and the second electrically conducting disc being designed approximately in the form of an n-sided shape, the n-sided shape having rounded corners, at least one of the first electrically conducting disc and the second electrically conducting disc being approximately one of oval and elliptical, three webs between the electrically conducting base area and the first electrically conducting disc being each situated so they being offset by approximately 120° relative to one another, and slots formed by adjacent webs between the electrically conducting base area and the electrically conducting disc each having a length of approximately half a operating wavelength.

Regarding claims 22-25, it would have been an obvious matter of design choice to have at least one of the first electrically conducting disc and the second electrically

conducting disc being designed approximately in the form of an n-sided shape, the n-sided shape having rounded corners, at least one of the first electrically conducting disc and the second electrically conducting disc being approximately one of oval and elliptical, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art.

Regarding claims 30-31, it would have been an obvious matter of design choice to have the at least one conducting web including three webs between the electrically conducting base area and the first electrically conducting disc being each situated so they being offset by approximately 120° relative to one another, since applicant has not disclosed that the at least one conducting web including three webs between the electrically conducting base area and the first electrically conducting disc being each situated so they being offset by approximately 120° relative to one another solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the conducting webs as taught by Abe.

Regarding claim 34, it would have been an obvious matter of design choice to have the slots formed by adjacent webs between the electrically conducting base area and the electrically conducting disc each having a length of approximately half a operating wavelength, since such a modification would have involved a mere change in

the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

Allowable Subject Matter

10. Claims 32 and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: none of the cited art discloses the three webs between the electrically conducting base area and the first electrically conducting disc are mutually rotated by 60° with respect to the three webs between the first electrically conducting disc and the second electrically conducting disc or at least one third disc arranged between the first electrically conducting disc and the second electrically conducting disc and including a recess; at least one third web, wherein: the at least one third disc is connected to the outside edge of the second electrically conducting disc by a web of the at least one second electrically conducting web, the second electrically conducting disc being adjacent to the at least one third disc, and the at least one third disc is connected on an outside edge thereof to the at least one first electrically conducting web by the at least one third web.

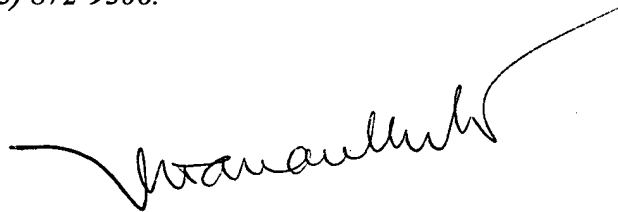
Correspondence

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Hoanganh Le whose telephone number is (703) 308-4921.

13. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

14. Papers related to Technology Center 2800 applications **only** may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 872-9306.

Hoanganh Le
Primary Examiner
Art Unit 2821
September 29, 2003



Hoanganh Le
Primary Examiner